In the Claims:

1. (Currently Amended) A co-crystal of mammalian Glucokinase ~~(Seq ID NO:1)~~ (SEQ ID NO:1) and a ligand bound to an allosteric site of the Glucokinase, wherein

the co-crystal has unit cell dimensions of:
a and b are from 79 Å to 80.2 Å;
c is from 318 Å to 325 Å;
α and β are 90°; and
γ is 120°;

and the co-crystal has P6(5)22 symmetry~~.~~, wherein further the ligand is selected from the group consisting of 3-Cyclopentyl-2-pyridin-4-yl-N-thiazol-2-yl-propionamide, N-(5-Bromo-pyridin-2-yl)-2-(3-chloro-4-methanesulfonyl-phenyl)-3-cyclopentyl-propionamide, 2-(3-Chloro-4-methanesulfonyl-phenyl)-3-cyclopentyl-N-(5-trifluoromethyl-pyridin-2-yl)-propionamide, (2S)-2-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionylamino]-thiazole-4-carboxylic acid methyl ester, (2S)-{2-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionylamino]-thiazol-5-yl}-oxo-acetic acid ethyl ester, (2S)-{3-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionyl]-ureido}-acetic acid methylester, (2S)-1-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionyl]-3-(3-hydroxy-propyl)-urea, and (2S)-{3-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionyl]-ureido}-acetic acid ethyl ester.

2. (Currently Amended) A crystal of mammalian Glucokinase ~~(Seq ID NO:1)~~ (SEQ ID NO:1), wherein
the crystal has unit cell dimensions of:
a and b are from 79 Å to 80.2 Å;
c is from 318 Å to 325 Å;
α and β are 90°; and
γ is 120°;

and the crystal has P6(5)22 symmetry.

3. (Currently Amended) A process for co-crystalizing mammalian Glucokinase ~~(Seq ID NO:1)~~ (SEQ ID NO:1) and an allosteric ligand of Glucokinase, the process comprising:

providing a buffered, aqueous solution of 9 to 22 mg/ml of the mammalian Glucokinase (Seq ID NO:1);

adding a molar excess of the allosteric ligand to the aqueous solution of mammalian Glucokinase; and
growing crystals by vapor diffusion using a buffered reservoir solution of 16% to 25% PEG, 0% w/v to 30% w/v glucose and 8 to 10 mM DTT, wherein the PEG has an average molecular weight of about 8,000 to about 10,000~~.~~, wherein further the ligand is selected from the group consisting of 3-Cyclopentyl-2-pyridin-4-yl-N-thiazol-2-yl-propionamide, N-(5-Bromo-pyridin-2-yl)-2-(3-chloro-4-methanesulfonyl-phenyl)-3-cyclopentyl-propionamide, 2-(3-Chloro-4-methanesulfonyl-phenyl)-3-cyclopentyl-N-(5-trifluoromethyl-pyridin-2-yl)-propionamide, (2S)-2-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionylamino]-thiazole-4-carboxylic acid methyl ester, (2S)-{2-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionylamino]-thiazol-5-yl}-oxo-acetic acid ethyl ester, (2S)-{3-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionyl]-ureido}-acetic acid methylester, (2S)-1-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionyl]-3-(3-hydroxy-propyl)-urea, and (2S)-{3-[3-Cyclopentyl-2-(3,4-dichloro-phenyl)-propionyl]-ureido}-acetic acid ethyl ester.

4. (Currently Amended) The process of claim 3, wherein the step of growing crystals by vapor diffusion comprises:
streaking the buffered, aqueous solution of mammalian Glucokinase ~~(Seq ID NO:1)~~ (SEQ ID NO:1) with added allosteric ligand on a surface to form an elongated droplet of protein solution, and
streaking about an equal amount of the buffered reservoir solution across the elongated droplet of protein solution, forming a combined droplet shaped like the letter 'X'.